405 KAR 30:330. Sediment control measures.

RELATES TO: KRS 151.250, 350.600
STATUTORY AUTHORITY: KRS 151.125, 224.033, 350.028, 350.050, 350.600
NECESSITY, FUNCTION, AND CONFORMITY: KRS 380.600 requires the Environmental and Public Protection Cabinet to develop administrative regulations for oil shale operations to minimize and prevent their adverse effects on the citizens and the environment of the Commonwealth. This administrative regulation sets forth requirements for sediment control measures.

Section 1. Sediment Control Required. Appropriate sediment control measures shall be designed, constructed, and maintained to prevent additional contributions of sediment to stream flow or to run off outside the permit area using the best technology currently available. In no event shall contributions be in excess of requirements set by applicable state or federal law.

(1) Sediment control measures include practices carried out within and adjacent to the disturbed area. For the purpose of this administrative regulation, disturbed area shall not include those areas in which only diversion ditches, sedimentation ponds, or roads are installed and the upstream area is not otherwise disturbed by the mining operation. The scale of downstream practices shall reflect the degree to which successful techniques are applied at the sources of the sediment. Sediment control measures consist of the utilization of proper mining, reclamation methods, and sediment control practices (singly or in combination) including but not limited to:

(a) Disturbing the smallest practicable area for good site management during the mining operation through progressive backfilling and grading, and timely revegetation;

(b) Consistent with the requirements of this chapter, shaping the backfill material to promote a reduction of the rate and of run-off;

(c) Retention of sediment within the pit and disturbed area;

(d) Diversion of overland and channelized flow from undisturbed areas around or in protected crossings through the disturbed area;

(e) Utilization of straw dikes, riprap, check dams, mulches, vegetative sediment filters, dugout ponds, and other measures that reduce overland flow velocity, reduce run-off volume, or entrap sediment; and

(f) Sedimentation ponds.

(2) Maximum utilization shall be made of on-site sediment control practices.

(3) All surface drainage from the disturbed area including disturbed areas which have been graded, seeded, or planted shall be passed through a sedimentation pond or a series of sedimentation ponds before leaving the permit area. Sedimentation ponds shall be retained until drainage from the disturbed area has met the water quality requirements and the revegetation requirements of these administrative regulations have been met. All sedimentation ponds required shall be constructed in accordance with this chapter and in appropriate locations prior to any mining in the affected drainage area in order to control sedimentation or otherwise treat water. Sedimentation ponds shall be certified by a qualified registered engineer as having been constructed as designed and as approved by the cabinet. Sedimentation ponds may be used individually or in series, and should be located as near as possible to the disturbed area and where possible out of major stream courses.

(4) Sediment shall be removed from sedimentation ponds so as to assure maximum sediment removal efficiency and attainment and maintenance of effluent limitations. Sediment removal shall be done in a manner that minimizes adverse effects on surface waters due to its chemical and physical characteristics, on infiltration, on vegetation, and on surface and groundwater quality. Sediment that has been removed from sedimentation ponds and that meets the requirements for topsoil may be redistributed over graded areas in accordance with 405 KAR 30:290.

(5) All sediment ponds shall be designed by a registered professional engineer and at a minimum shall meet the following:

(a) Sediment ponds shall be designed, constructed, and maintained to prevent short-circuiting.

(b) Sediment ponds shall provide a detention period such that discharges from the pond resulting from the water inflow or run-off entering the pond from a ten (10) year, twenty-four (24) hour precipitation event and lesser events shall meet the effluent limitations of Appendix A of 405 KAR 30:320.

(c) There shall be no outflow through the emergency spillway during the passage through the sedimentation pond of the inflow or run-off resulting from the ten (10) year, twenty-four (24) hour precipitation event or lesser events.

(d) An appropriate combination of principal and emergency spillways shall be provided to safely discharge the run-off from a twenty-five (25) year, twenty-four (24) hour precipitation event, or larger event specified by the cabinet. The elevation of the crest of the emergency spillway shall be a minimum of one (1) foot above the crest of the principal spillway. Emergency spillway grades and allowable velocities shall be approved by the cabinet.

(e) Sediment control structures having an embankment that is more than twenty-five (25) feet in height, as measured from the natural bed of the stream or intercourse of the downstream toe of the embankment to the low point in the top of the embankment or a maximum impounding capacity of fifty (50) acre-feet or more shall be designed, constructed, and maintained in accordance with KRS Chapter 151 and administrative regulations promulgated pursuant thereto.

(f) All sediment control structures shall be designed and constructed to achieve a minimum static safety factor of one and five-tenths (1.5) or larger if specified by the cabinet.

(6) In the design of sedimentation ponds pursuant to this administrative regulation, the responsible design engineer shall determine the structure hazard classification as set forth in 405 KAR 30:020 and the structure hazard classification shall be clearly shown on the first sheet of the design drawings.

(7) Sedimentation ponds classified (B) - moderate hazard or (C) - high hazard shall be approved by the cabinet, designed, constructed and maintained according to the provisions of KRS 151.250 and administrative regulations adopted pursuant thereto.

Section 2. The permittee shall forward a certified copy of "as built" engineering plans for all dams or structures which meet either of the following criteria to the Environmental and Public Protection Cabinet, Division of Water, Frankfort, Kentucky 40601. Such plans shall be provided immediately after construction is completed.

(1) The embankment is twenty-five (25) feet or more in height measured from the natural bed of the stream or watercourse at the downstream toe of the fill to the low point in the top of the embankment; or

(2) The structure has an impounding capacity of fifty (50) acre-feet or more at the lowest point in the top of the embankment.

Section 3. The cabinet may require other actions necessary to ensure that the provisions of this administrative regulation are met. (8 Ky.R. 127; Am. 488; eff. 3-1-1982; TAm eff. 8-9-2007; Crt eff. 7-3-2018.)